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(11) EP 0 641 573 A3

(12)

#### **EUROPEAN PATENT APPLICATION**

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### (54) Method and apparatus for phase related cardiac defibrillation

(57) An implantable cardioverter/defibrillator and method for its use are disclosed. A sensing electrode (14, 16) provides an ECG signal to the defibrillator, this signal is amplified (12, 26) and evaluated for the presence of a tachyarrhythmia. The phase of the ECG signal is sensed during a detected fibrillation or tachycardia and this determines the phase of the stimulating output

signals. The ECG may be continously sensed during the application of the defibrillating output and each output is held constant until a threshold crossing of the ECG is detected, whereupon the defibrillating output is changed

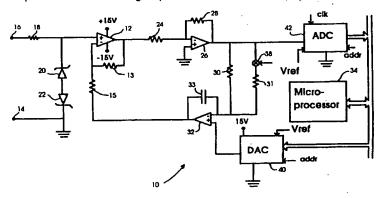


FIG. 1



## PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention EP 94 11 2555 shall be considered, for the purposes of subsequent proceedings, as the European search report

Category	Citation of document with indi		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)	
A	US 4 998 531 A (CARD	IAC PACEMAKERS, INC.)		A61N1/39	
	* the whole document	*			
A	US 4 967 747 A (VENT	RITEX, INC.)	1,2,5-7, 9,10,13, 14,16, 20,21		
	* the whole document *				
A,P	EP 0 589 251 A (CARD	1AC PACEMAKERS, INC.)	1,3,7,8, 13,15, 18-20		
	* column 4, line 5 -	column 9, line 30 *			
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		ŕ		TECHNICAL FIELDS SEARCHED (Int.Cl.6)	
				A61N	
INCO	OMPLETE SEARCH			]	
the prov out a m Claims	arch Division considers that the present in the present in the European Patent Convention earningful search into the state of the art searched completely:  searched incompletely:	European patent application does not come to such an extent that it is not possible on the basis of some of the claims.	ply with to carry		
Claims	not searched:				
Reason	for the limitation of the search:				
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-	Place of search	Date of completion of the search		Examiner	
	THE HAGUE	3 April 1997	Le	Lemercier, D	
	11.0	particularly relevant if combined with another D: Sociament cites in the application			
Y:	CATEGORY OF CITED DOCUME	E : earlier patent after the fills other D : document cit L : document cit	t document, but pung date led in the applicati ed for other reasor	hlished on, or on	



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EP 94 11 2555 - C -

#### **INCOMPLETE SEARCH**

The Search Division considers that the present European patent application does not comply with the provisions of the European Patent Convention to such an extent that it is not possible to carry out a meaningful search into the state of the art on the basis of some of the claims.

Claims searched completely:

1-21

Claims searched incompletely:

Claims not searched:

22-27

Reason for the limitation of the search: Method for treatment of the human or animal body by surgery or therapy (see Art. 52(4) of the European Patent Convention).

**EPO Form** 

Supplementary Sheet C (1996)

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